

MALECKI, Jan, prof. dr. med.

Studies on the adaptation phenomenon of the vestibular apparatus.
Otolaryng. Pol. 18 no.1:27-32 '64.

Writing a medical paper... Ibid.:13-18

1. Z II Kliniki Otolaryngologicznej Studium Doksztalcania
Lekarzy (Kierownik: prof. dr. med. J. Malecki.)

MALECKI, Jan

Tympanomyoplasty. Otolaryng. Pol. 18 no.4:473-477 '64.

1. Z II Kliniki Laryngologii Studium Doskonalenia Lekarzy
(Kierownik: prof. dr. med. J. Malecki), Warszawa.

MALECKI, J.

20 years of otolaryngology in the People's Polish Republic.
Otolaryng. Pol. 18 no.3:1-7 '64

MALECKI, Jan

Papillomatous tumors of the paranasal sinuses. Otolaryng. Pol.
17 no.3:259-63

1. Z II Kliniki Laryngologii SDL; kierownik: prof.dr.med.
J. Malecki.

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MALECKI, J.

Dielectric saturation in benzene-chloroform-hexanol-1 three component mixtures. Acta physica Pol. 24 no.1:107-113 J1'63.

1. Institute of Physics, Polish Academy of Sciences, Poznan.

MALECKI, J.

Dielectric polarization of aliphatic alcohols in strong electric fields. Acta physica Pol 21 no.1:13-43 '62.

1. Institute of Physics, Polish Academy of Sciences, Poznan.

Malecki, J.

POLAND/Magnetism - Experimental Methods of Magnetism

F-2

Abs Jour : Ref Zhur - Fizika, No 5, 1958, No 10779

Author : Malecki, J., Surma M., Gibalewicz, J.

Inst : Adam Michiewicz University, Poznan, Poland

Title : Measurement of the Intensity of Transient Magnetic Fields by
the Faraday Effect.

Orig Pub : Acta phys. polon., 1957, 16, No 1-2, 151-156

Abstract : Pulsed magnetic fields were obtained by discharging a bank of capacitors through a coil. The magneto-optical Faraday effect was used to measure the intensity of the pulsed magnetic fields. A change in the intensity of light, due to the rotation of the plane of polarization, was determined by means of a photomultiplier and a cathode ray oscillograph. Magnetic fields up to 100,000 oersteds were measured. The optical media employed were CS₂, CCl₄, and H₂O.

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MALECKI J.

POLAND/Magnetism - Experimental Methods of Magnetism

F-2

Abs Jour : Ref Zhur - Fizika, No 2, 1958, No 3597

Author : Pickara A., Malecki, J.

Inst : Adam Mickiewicz University, Poznan, Poland.

Title : On a Method of Producing Strong Magnetic Fields of Short Duration.

Orig Pub : Acta phys. polon., 1956, 15, No 6, 381-388

Abstract : The work contains a description of a method that makes it possible to obtain strong magnetic field of duration on the order of 50 microseconds. The energy source is a bank of capacitors of 2 microfarad capacity and a working voltage of 50 kv. The problem of construction of a coil of high mechanical strength is considered. A method is given for measuring the intensity of the pulsed magnetic field using a probe coil and a cathode ray oscillograph. The authors obtained fields up to 350,000 oersted in a volume of approximately 1 cubic cm.

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MALECKI, J.

"Extension of the corrected system of electromechanical analogies on continuous isotropic media." p. 23. (ARCHIWUM ELEKTROTECHNIKI Vol. 2, No. 1/2, 1953. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4. No. 4. April 1955. Uncl.

MALECKI, Jerzy

Electric conductivity of dielectric liquids in a weak electric field; theory and comparison with results of experiments.
Prace matem przyrod Poznan 11 no. 2:125-136 '64.

1. Department of Dielectrics, Institute of Physics, Polish Academy of Sciences, Poznan.

MALECKI, Jerzy; KROWARSCCH, Andrzej

Pulse method of measuring the electric conductivity in dielectric liquids. Prace matem przyrod Poznan 11 no. 2:113-124 '64.

1. Department of Dielectrics, Institute of Physics, Polish Academy of Sciences, Poznan, and Department of Experimental Physics, A. Mickiewicz University, Poznan.

MALECKI, J.

FIDELSKI, R.; KOTELBA, A.; MACIOL, K.; MALECKI, J.

Thrombin preparation and its clinical applications. Polskie
arch. med. wewn. 26 no.12:1925-1928 1956.

1. Katowice, ul. Swierczewskiego 15.
(THROMBIN, ther. use
thrombin prep., indic. (Pol))

MALECKI, Ignacy, prof. dr inz.

Role of technical and natural sciences in the development of the
national economy during the 20 years of People's Poland.
Przegl techn 85 no.29:3-4 19 J1 '64.

MALECKI, Ignacy, prof. dr

Integration of sciences. Problemy 19 [i.e. 20] no. 2:68-71
'64.

1. Member of the Polish Academy of Sciences, Deputy Scientific
Secretary of the Polish Academy of Sciences, Head, Department
of Electroacoustics, Technical University, Warsaw.

MALECKI, Ignacy, prof. dr

World organization of scientific collaboration. Problemy i
[1.6.20] no. 3/138-145 '64.

1. Vice-President, International Council of Scientific Unions.

MALECKI, Ignacy. prof. dr

The share of science in solving problems of technological progress and the 20th anniversary of the Polish People's Republic. Problemy 20 no.7:403-410 '64.

1. Deputy scientific secretary, Polish Academy of Sciences, Warsaw.

MALECKI, Ignacy, prof.

Organization of sciences and higher education in Canada. Nauka
polska 11 no.1:151-158 Ja-F '63.

1. Członek rzeczywisty Polskiej Akademii Nauk, Warszawa.

MAJECKI, Ignacy, prof. dr.

Role of technical and natural sciences in contemporary
economy. Problemy 19 no.8:473-481 '63.

1. Członek rzeczywisty i zastępca sekretarza naukowego Polskiej
Akademii Nauk, Warszawa.

MALECKI, I.

Methods for the study of the mechanism of action of psychopharmacological drugs. Acta physiol.polon.11 no.5/6:816 '60.

1. Z Zakladu Farmakologii A.M. w Lodzi, Kierownik: prof.dr.E.Leyko.
(PSYCHOPHARMACOLOGY)

MALECKI, I.

Analysis of sedative and hypotensive mechanisms of action of reserpine (serpasil). Acta physiol.polon. 11 no.5/6:814-815 '60.

1. Z Zakladu Farmakologii 2-go Moskiewskiego Panstwowego Instytutu Medycznego im. M.I.Pirogowa, Kierownik: prof.dr W.W.Wasiljewa.
Z Zakladu Farmakologii A.M. w Lodzi, Kierownik: prof.dr E.Leyko.
(RESERPINE pharmacol)

MALECKI, I.

Effect of serpasil on the functional state of the central nervous system. Acta physiol.polon. 10 no.6:729-731 N-D '59.

1. Z Katedry Farmakologii 2-go Moskiewskiego Panstwowego Instytutu Medycznego im. M.I. Pirogowa. Kierownik: prof. W.W. Wasiljewa.
(REFLEX CONDITIONED pharmacol.)
(ELECTROENCEPHALOGRAPHY pharmacol.)
(RESERPINE pharmacol.)

MALECKI, Ignacy, prof. dr inż.

Role of technological and natural sciences in the development
of the national economy during the twenty-year period of the
Polish People's Republic. Przegł techn 85 no.23:5 7 Je '64

MALECKI, Ignacy, prof. dr.

Development prospects of molecular acoustics. Problemy 20 no.10:
612-616 '64

1. Member of Polish Academy of Sciences, Head, Department of
Vibration Studies, Institute of Basic Technical Problems,
Polish Academy of Sciences, Warsaw, and Head, Department of
Electroacoustics, Technical University, Warsaw.

MALECKI, Ignacy, prof., dr.

The 21st century in Seattle. Problemy 18 no.9:607-613 '62.

1. Członek rzeczywisty i zastępca sekretarza naukowego Polskiej Akademii Nauk, Warszawa.

MALECKI, Ignacy, prof., dr.

A long range plan for the development of Polish sciences. Problemy
18 no. 2:74-81. '62.

MALECKI, Ignacy

The 9th General Meeting of the International Council of Scientific
Unions, London, September 25-28, 1961. Nauka polska 10 no.2:137-141
'62.

1. Członek Rzeczywisty Polskiej Akademii Nauk, Warszawa

MAIECKI, Ignacy

Foundations of a perspective plan of the development of Polish sciences.
Nauka polska 10 no.2:3-18 '62.

1. Członek rzeczywisty Polskiej Akademii Nauk, Warszawa

MALECKI, Ignacy

Foundation of the long-term plan for the development of science
in Poland. Review Pol Academy 7 no.2:1-14 Ap/Jl '62.

MALECKI, Ignacy

Development of nondestructive methods for the investigation
of materials in connection with economic assignments.
Nauka Pol 9 no.4:53-58 O-D '61.

1. Członek rzeczywisty Polskiej Akademii Nauk.

MALECKI, Ignacy, prof.

Development proportions in various industrial branches. Przegl
techn 81 no.9:6-9 '60.

MALECKI, Ignacy, prof.

The technical basis for the utilization of the production basis.
Przepl techn 81 no.8:1-3 '60.

MALECKI, Ignacy, prof.

The process of industrial investments. Przegl techn 31 no.7:
1-6 '60.

MAJ, ECKI, Ignacy, prof.

Reconstruction and development of the technological basis.
Przeegl techn 81 no.6:15-18 F '60.

MALECKI, Ignacy, prof.

Fifteen years of technology in the Polish People's Republic.
Przegl techn 81 no.5:4-6 F '60.

MALECKI, Ignacy

Nondestructive testing of materials; the 3d World Congress in
Tokio. Nauka polska 8 no.3:219-222 J1-S '60.

1. Członek rzeczywisty Polskiej Akademii Nauk, Instytut Podstawowych
Problemow Techniki, Warszawa.

ABRAMCHIK, M. [Abramczyk, M.], ~~MALECKI, I.~~ [Malecki, I.]

Effect of the location on the effectiveness of three-dimensional
sound absorbers. Akust. zhur. 6 no.4:494-495 '60. (MIRA 13:12)

1. Varshavskiy politekhnicheskii institut.
(Absorption of sound)

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also be mentioned. The Polish pharmaceutical industry draws upon domestic synthesis for 70 % of all its products today. Table 24 shows the increase in the production of certain chemicals for the years 1938, 1949 and 1959 (approximate figures). In closing his review of the development of Polish technical sciences, the author indicates that the progress is largely due to better training facilities. Today, Poland has 6 technical universities. The role of the Polish Academy of Sciences, founded in 1951, in the general progress of science in Poland is of utmost importance. Since research is one of the fundamental principles of technical development, the 5-year plan for 1961-1965 presented to the Polish people strives for greater productivity by way of increased technical progress and development. There are 24 tables and 9 Polish references. ✓

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gines under license from Sultzer by the Polish "Cegielski" Plant. The expansion of the electro-technical industry was considerable but uneven; greatest achievements were in the field of radio-engineering, while the production of electrical machines, communication equipment, etc. is still lagging behind. The most important achievements are the production of 2,400-KM d-c motors, distributing equipment, 110-kw cables and transformers. Notable is also the progress of chemical industry during the past 15 years. This was helped along by the supplies of certain raw materials by the USSR, such as natural gas, gypsum and sulfur. The Polish sulfur deposits in the Tarnobrzeg, Piaseczno and Solca areas are estimated at 100 million tons. The chemical combine in Oświęcim is an important contribution to the Polish chemical industry. It was built with the help of the USSR and is especially important for its production of synthetic rubber and synthetic materials, such as polyvinyl chloride and polystyrene. Chlorine is produced in Oświęcim by the modern mercury electrolysis method. In addition to the existing fertilizer plants in Tarnów and Chorzów, the plant in Kędzierzyn has been built. The production of sulfuric acid was modernized by the introduction of the column-chamber method and by the adoption of a new method of producing sulfuric acid from anhydrite by the plant in Włocławek. Production of calcined soda was increased and a new plant also built in Janikowo. The new plant in Jelenia Góra (viscose fiber) and in Gorzów (steel) should

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ments with little or none of products such as thin sheet and high-quality steel. This situation was partly rectified in 1959 when the sheet-rolling mill of the "Imienia Lenin" Plant and the furnace of the "Warszawa" Plant started operating. Another deficiency lies in the fact that the metallurgical industry in Poland is not fully employing the oxygen-converter process. In 1957, the USSR produced 20.5 % of its steel by the oxygen process and by the end of 1960, 28 oxygen plants will be put into operation. A progress was noted in the aluminum industry with the expansion of the aluminum plant in Skawina, built in 1954. A contribution to the metallurgical industry will be the discovery of large copper deposits in the Głogów area. With the increase in metallurgical production, the problem of spoil banks, which amount to 37 million tons in the Katowice wojewodztwo alone, arises. With the help of the USSR the Polish machine industry increased its output considerably; by 1949 the total output was 40 % more than the prewar output. The practically non-existent prewar shipbuilding industry is today one of the most important Polish industrial branches. The tonnage of ships produced in 1949 amounted to 5,100 RT and in 1958 to 175,000 RT. Construction of 6,000-ton ships, 10,000-ton merchant vessels, 9,300-ton vessels and 18,000-ton tankers places Poland among the important world shipbuilding countries. Another important step forward in the shipbuilding industry is the production of marine en-

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the number of low and medium-tension lines is still somewhat low. The present demand of the Polish metallurgical industry for iron ore can be covered only with 15 % from the domestic 30 %-Fe-ores. However, this can not and should not be considered as a deterrent to the development of the metallurgical industry and a comparison is drawn with Italy which is relying entirely on the import of iron ore and coal and yet has a very well-developed metallurgical industry. During the period 1945-1958, seven blast furnaces with a total volume of 6,714 m³ were built. Two of these furnaces, i.e., the furnaces in the "Kościusko" and "Bierut" metallurgical plants are entirely of domestic construction. In 1958, the Polish metallurgical industry produced 3,864 thousand tons of cast iron, 5642 thousand tons of steel and 3700 thousand tons of rolled products. The percentage of sinter in the blast furnace charge increased from 18.5 % in 1950 to 54.5 % in 1958. The "Imienia Lenin" Metallurgical Plant is not only one of the largest, but with some of its sections, e.g., the cold-rolling mill, one of the most modern plants of this type in Europe. The credit for this goes to the USSR which supplied not only the technical documentation, but also over 111 thousand tons of equipment. In spite of such considerable progress during the 15 years, certain deficiencies still have to be mentioned. Up to 1959, the Polish metallurgical industry concentrated on the production of primitive assort-

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areas. During the last 15 years, 8 new mines were constructed and the construction of 5 others started. Modernization was also introduced so that today about 46 % of all mine shafts are built from steel. While safety measures for miners have been increased deficiencies in coal sorting are still noticeable. The GDR provided help with the development of one of Europe's richest brown coal deposits in Turow. Simultaneously with this project, the construction of a brown coal combine was started in the Konin area. With the expansion of the mining industry, the production of mining machinery and equipment also increased. In 1958, 159,000 tons of such machines were produced. In the field of hydraulic engineering, pressures of 300 atm are being introduced. The technological progress in the power production depends largely on the country's boiler and turbine industry. In 1959, powder-fueled boilers with a capacity of 125 tons of steam per hour and pressure of 40 atm were built, but already in 1956, 110-atm boilers with 230 tons of steam per hour were developed with Soviet help. The plants in Raciborz and Elblag started the construction of 120-kw boiler-turbine units. In 1959, the first 50-Mw turbine was put into operation. By 1958, the power industry installations were considerably modernized; only 13 % of all equipment installed is over 30 years old. Erection of the 220-kv Silesia-Warsaw transmission line was a considerable technical achievement, but

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progress has also been made in bridge construction. Welded structures are used more frequently and prestressed concrete structures are being introduced. During the 6-year plan period over 22,000 km of roads were improved, but this increase does not apply to secondary roads. This was remedied during the 1956-59 period when more secondary roads were built yearly. During the period 1950-1956, about 7,500 m of bridges were built yearly. In 1959, a total of 701 m of prestressed concrete bridges were built. In 1958, Poland had 1.54 telephone subscribers per 100 inhabitants. Table 13 shows the trend of development of various industries during the 5-year and 6-year plan. Table 14 shows the trend of development of various industries compared to the trend of development of the whole of the industry during 1957-1958 in Poland, the CSR, USSR, Italy and West Germany. Table 15 compares the participation of various Polish, Hungarian, Czechoslovak and West German industrial branches in the whole of these countries' industrial production, while Table 16 gives the 1958 per capita production of several industrial products in various European countries including Poland, the CSR and the USSR. The policy of building new coal mines and modernizing existing ones proved very wise. Poland is the sixth on the list of World coal producers today. The intensified geological research after the war brought new coal deposits, such as in the Mszana and Jastrzebia ✓

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and immediately after the war the Polish industrial enterprises were concentrated in certain geographical regions. During the period 1950-1955 a number of new industrial areas were opened, i.e., the Częstochowa area (mining of iron ore and metallurgy) and Kłodawsko-Koniń area (mining of brown coal). The period 1955-1959 saw a further improvement in this direction, i.e., larger investments in small towns and an intensification of industries in Western Territories. This development was largely due to better communication and transport facilities. Although a big increase in railroad freight and passenger traffic was noted during the past 15 years, the rolling stock did not increase proportionately. The Polish railways still predominantly use steam locomotives, and the number of diesel and electric trains is still low. This was rectified to some extent in 1957 when the PKP bought up the last steam locomotives. Table 9 shows the amount of electrified railroad lines in % in 1957 for various European countries including USSR (6.4), Poland (2.4) and CSR (2.1). The postwar period also saw an increase in the number and weight of railroad tracks; their weight having been increased from 37 kg/m to 42.5 kg/m. Several years ago the construction of flat-bottomed rails was started. In 1959, there were 200 km of these rails in Poland and 33 % of all tracks have by now heavy superstructures. On the most important railroad lines the speed has been increased to 100 km/h. Considerable

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(Table 1). In 1958, the USSR was the first on the list of foreign countries trading with Poland, the GDR was the second, CSR the fourth and China the eighth; while Western Germany, England, France and USA took the third, fifth, sixth and seventh place respectively (Table 2). During the period 1950-1957, Poland showed the highest index of increase in national income (Table 3). The high expenditure on investments during the 15-year period was also due to considerable help from the USSR. The Soviet Union supplied 1) the most urgently needed spare parts for various technical equipment which allowed a fast reconstruction of demolished plants; 2) metallurgical, power and machine tool industry equipment which permitted a fast development of these industries, and 3) trained personnel which acquainted the Polish technicians with new technological methods of production. A table showing the trend in the increase of world industrial production as compared with 1950 is included in the article (Table 5). During the period 1949-1957, the Polish per capita power production rose from 340 kwh to 749 kwh, steel production from 94 kg to 188 kg, cement production from 94 kg to 159 kg and sulfuric acid production from 11.3 kg to 17.8 kg. Table 7 shows the capacities of Polish metallurgical and power installations in 1958. A typical example of increased productivity of industrial installations is that of ammonium converters, i.e., from 38 t/day in 1938 to 60 t/day at present. Before

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nical equipment existing in Poland was destroyed. The damage in power industry was 52 %. About 160 million m³ of Polish towns were in ruins, a comparatively high figure, since in the USSR only 2.5 million m³ of populated places were destroyed. The percentage of workers employed on reconstruction projects in 1945 was only 58 % of the employment figure in 1937. In the Western Territories the number of employees in mining and industry was 112,600 while the total number of such employees in the whole of Poland was 738,400. In addition to this, in 1945 the engineers and technicians were acquainted only with the already then generally considered obsolete technological processes and equipment. The first general industrial reconstruction projects worked out in 1945 by the Ministerstwo Przemyslu (Ministry of Industry) in Lublin and later in Warsaw, showed that the organization of basic industries will have to be based on different principles. The reasons for this were 1) new socialist conceptions of industrial development; 2) change-over to the construction of large industrial plants instead of small enterprises; 3) development of industry in the Western Territories and 4) increase in foreign trade. In 1958, Poland exported 16.2 million tons of bituminous coal, 2.1 million tons of coke, 593,000 tons of rolled products, 86,000 tons of zinc and zinc sheet, 222,000 tons of sugar, 91,000 tons of meat and meat products and about 340,000 tons of machinery and equipment

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AUTHOR: Malecki, Ignacy

TITLE: Fifteen Years of Engineering in Poland

PERIODICAL: Nauka Polska, 1960, No. 2 (30), pp. 62-87

TEXT: The article contains extracts from the report presented to the PAS scientific session commemorating 15 years of the Polish People's Republic, which was held on December 17, 1959. Full text of the report will be published in "Zeszytu Problemowe Nauki Polskiej". The present state of technical development in Poland has to be evaluated on the basis of 1) the size and structure of primary industries (these include the building industry and transport); 2) demands placed upon the basic industries and their actual output and 3) possibilities of further technical development. The first of these factors depends upon the amount and the soundness of investments, the second on raw materials and workers in industries, and the third on the development of engineering and the facilities for the realization of new ideas and developments. However, to obtain a true picture of technical development in Poland an analysis of the past 15 years is absolutely necessary. In 1945, 45 % of all tech-

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AUTHOR: Malecki, Ignacy, Doctor of Engineering, Professor

TITLE: The Development of Ultrasonic Methods of Nondestructive Material Testing in View of the 3rd NDT Congress in Tokyo

PERIODICAL: Pomiary-Automatyka-Kontrola, No. 9, 1960, 337 - 343

TEXT: The article constitutes a summary of NDT problems presented at the Tokyo Congress in March 1960, the third of the assemblies convened once every three years (after Brussels 1955 and Chicago 1957). Along with Japanese participants, about 90 engineers and scientists of 19 countries presented about 100 reports on NDT. The summary comprises chapters on the correlation between defects and the oscilloscope picture, testing standardization, visualization and automation in ultrasonic testing, and influence of material properties on wave propagation. There are 22 figures and 29 references: 27 English-language, 1 Soviet and 1 German.

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rubber, PVC nad polystyrene plastics. Aside from these products it also produces considerable amounts of carbide and chloride. The latter is presently the basic by-product of organic synthesis. The chemical plant in JANIKOWO, which already before WW-II had produced considerable amounts of calcinated soda, is being enlarged. Two new plants, the viscose rayon staple plant in JELENIA GORA, and steelon plant in GORZOW, were put into operation. A large progress was made by the pharmaceutical industry. It has developed a national drug synthesis on which 70% of its chemical production is based (12.5% on 1949). There are 3 photos, 12 tables, and 6 references of which 5 are Polish, and 1 comprising CSR, Hungarian, West German, U.K. and French sources.

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made by the electrical engineering industry, and radio industry. The latter has mastered mass production, improved the quality of products, and started radio tube production. On the other hand production of electric machines, installations and equipment, switch gears, and teletransmission gears is making slow progress. Among its more important achievements is the serial production of a 2,400 HP DC motor, high tension switching gears and transformers, coaxial cable production, and enlargement of multiplex telephony. The chemical industry's production value is 9 times higher than in 1938. Due to a continuous supply of Soviet crude oil, new domestic geological discoveries of natural gas, gypsum, sulfur as well as construction of new chemical plants, its output steadily increases. An important role in chemical production is played by the chemical complex in OSWIECIM. This plant, built with Soviet aid, recently started production of synthetic

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due to a considerable supply of machines and equipment by the USSR. The machine industry's share in the gross industrial production increased from 13% in 1938 to 19% in 1958. The technical achievements of the shipbuilding industry are particularly impressive. In 1949, 5,1 DWT (sic), and in 1958 - 175,000 DWT were constructed. The latter figure includes serial production of 6,000 DWT freighters, 10,000 DWT ships, 9,300 DWT base-ships, and an 18,000 DWT tanker. True progress was made in the shipbuilding industry by starting production of Diesel engines. They are constructed on a Sulzer license and after an own design at the "Cegielski" Plant in POZNAN. Considerable progress was also made in the machine tool production (75% of them were constructed after WW-II, and 25% were designed after 1955). Among the new designs are a contactless copy milling machine¹⁴, a contactless boring and turning machine, and a machine¹⁴ for electric spark machining. Dynamic progress has been

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seven blast furnaces totaling a capacity of 6,714 m³ were constructed of which 2 (at the "Kosciuszko" and "Bierut" steel plants) were entirely of Polish construction. The Huta Aluminium (Aluminum Plant) in SKAWINA which was put into operation in 1954 is still being enlarged. However, engineers have some reservations as to its high electric power consumption, i.e., about 18 kwh per 1 kg of metal. The plant's production is entirely based on imported bauxite. Unexpected perspectives were also given to the copper industry in conjunction with the discovery of copper ore deposits in the GLOGOW area. However, large scale production is still far away. Utilization of pit heaps started in 1954. In 1958 there were 37 million tons of pit wastes in the KATOWICE province alone. They are still growing due to increased industrial production. The development speed of the machine industry was higher than the average development speed of the entire industry. Its 1949 output already exceeded the prewar production by 40%

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WARSZAWA transmission line. In 1951, power grid losses in Poland and the CSR were on the same level (9.4%). In 1957, the CSR reduced them to 8%, whereas in Poland they had increased to 10%. Within 1952-56 much attention was given to the enlargement of thermoelectric power plants (see table 2 on p 8 col 1). Much criticized has been the allegedly exorbitant enlargement of the metallurgical industry, due to low raw material resources. Its output of low graded iron ore (less than 30% iron contents) covers only 15% of industrial requirements. This will probably not increase to more than 25%, in the near future. The development of the metallurgical industry is particularly striking when compared with the period between the last two wars. During this period only one blast furnace of 425 m³

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capacity was constructed. The 1938 steel production barely amounted to 86% of the 1913 output. From 1945-58

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ted to design 120 kW boiler-turbine units. In the same year the prototype of a 2 MW turbine was constructed. The first 25 MW turbine was put into operation in 1956, and a 50 MW turbine will be put into operation in 1960. Within the first 10 years the power industry output did not cover domestic requirements. By the end of the last 6-year plan, there was even an acute power shortage. This situation did not improve until 1958, when new large power plants were put into operation. The consolidation of high-voltage transmission lines in one power system has considerably improved distributing and signalization installations, and utilization of electric power plants. From 1946-1958 its power increased 117%, and its output 310%. Nearly 13% of the total electric power plants are more than 30 years old. Parallel with the enlargement of electric power plants, high voltage transmission lines were also extended (see table 1 on p 8). A real technical feat was the construction of the 220 kv Slask-

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Development Proportions in Various Industrial Branches

were constructed, and construction of 5 more started. Simultaneously their construction was modernized. For instance 46% of galleries got steel linings, fluid coal mine fillings, and fire-fighting equipment. The open pit lignite mine in TUROW, one of Europe's richest, was considerably enlarged with GDR aid. Also, a new lignite combine is under construction in the KONIN area. Another achievement of the coal industry is the development of the mining machine production. In 1958, a total of 109,000 tons of mining machines, among them combines and coal cutters were produced. The hydro-mechanization started to utilize high pressures approaching 300 atm. In 1947, the first 10 ton/hr steam boilers were produced. In 1951, already 125 ton/hr steam boilers with dust fueled furnaces, and in 1956 even high pressure (110 atm) 230 ton/hr steam boilers were produced. Production of the latter was based on Soviet documentation. In 1949, the plants in RACIBORZ and ELBLAG star-

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(8-5)
25-1-2,5)

POL/5-60-9-8/40

AUTHOR: Malecki, Ignacy, Professor

TITLE: Development Proportions in Various Industrial Branches

PERIODICAL: Przegląd techniczny, 1960, Nr 9, pp 6-9

ABSTRACT: The author analyzes the development proportions and achievements of various branches of the Polish industry during the last 15 years. Above all, he underlines how much industrial development depends on sufficient raw material resources and power. Within 1949-1958 the average annual coal production increase was nearly 3%. At the same time, domestic coal requirements were increasing annually by 6%. One of the main difficulties in the enlargement of the mining industry soon after WW-II was insufficient geological prospecting. However, in the last 15 years over 3.5 million m³ drillings were carried out which, among others, led to the discovery of coking coal deposits in the MSZANY and JASTREBIA areas, lignite deposits etc. Eight new mines

Card 1/8

Three-Dimensional Multi-Resonant Absorber

SOV/46-5-3-2/32

energy in the room, hall, etc., and also on the range of frequencies at which the absorber is most efficient. In a uniform field the effect of a neighbouring wall or ceiling is observed only in the case of absorbers very close to such a wall or ceiling. In rooms or halls with strong resonant properties the position of the absorber with respect to a wall or ceiling affects its efficiency to a large degree (Fig 12). There are 12 figures and 6 references, 1 of which is Soviet, 3 German, 1 French and 1 English.

SUBMITTED: May 26, 1958

Card 3/3

SOV/46-5-3-2/32

Three-Dimensional Multi-Resonant Absorber

or "closed" units. The closed units were highly selective and absorbed sound strongly in a narrow range of frequencies. Using partitions of different forms inside one cube, it could be made to resonate at several frequencies, hence the name multi-resonant absorber. Such absorbers can be used to control "whites" noise or noise with several strong spectral components. These absorbers were studied in a reverberation chamber and the results are shown in Figs 8-12. Fig 8 gives the equivalent absorption A (in m^2) of ten units of the four types shown in Fig 7. These absorbers were suspended 80 cm from the ceiling at such distances between each other as to avoid interference between their action. The shaded areas in Fig 8 indicate the regions of the most effective action of a given absorber. Figs 9 and 10 show the absorption curves of units with straight and bent partitions; the units with bent partitions have two absorption maxima which are displaced with respect to the single maximum of units with straight partitions. If the perforations are closed by thin plastic material the effectiveness of an absorber is increased (curve d in Fig 11). It was found that the effectiveness of absorbers falls considerably when they are placed apart at distances less than three times the absorber dimensions. The optimum distance between absorbers and a ceiling or a wall, which is a reflecting surface, depends on the distribution of sound

Card 2/3

MALECKI, I.

24(1)

AUTHORS: Abramchik, M. and Maletskiy, I. (Warsaw)

SOV/46-5-3-2/32

TITLE: Three-Dimensional Multi-Resonant Absorber (Ob'yemnyy mnogorezonansnyy poglotitel')

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 3, pp 275-281 (USSR)

ABSTRACT: A theoretical discussion of sound absorbers is followed by a report of an experimental study of absorbers for use in halls, stations, factories, stores, etc. The absorbers were in the form of cubes of 30 cm edge. Their external walls and internal partitions were all made of transparent celluloid of 2 mm thickness and 2.55 kg/m² specific weight. They were made of transparent material in order to avoid absorption of daylight illumination through glass roofs of factories, stations, etc. (the absorbers were intended for hanging near the roofs or ceilings). The external walls of the cubes were perforated as shown in Fig 7; the perforations were all 3 mm diameter and were spaced 15 mm apart. The elasticity of the cube walls was 2×10^{-7} cm/dyne. Four types of absorbers were studied (Fig 7). Some of the absorbers had no internal partitions (Fig 7, 1); they had very weak resonant properties and were called "open" type elements. Absorbers with a single partition (Fig 7, 2) were called "semi-closed" units. Absorbers with several partitions (Fig 7, 3 and 4), of which at least two were not perforated, were called "resonance"

Card 1/3

News in Brief. Conference on Electroacoustic Transformers

SOV/30-59-2-19/60

yeva spoke about the investigation of barium titanate and I. P. Golyamina about the investigation of ferrites as a material for electroacoustic transformers, V. Pajewski (Poland) dealt in his report with synthetic quartz and piezoelectric ceramics. V. S. Grigor'yev and B. Klarner (Poland) reported on transformers on the basis of special physical phenomena. Members of the Soviet delegation visited scientific research institutes in Warsaw.

Card 2/2

Malecki, I.

SOV/30-59-2-19/60

7(1)

AUTHOR: Golyamina, I. P.

TITLE: News in Brief (Kratkiye soobshcheniya)
Conference on Electroacoustic Transformers (Konferentsiya po elektroakusticheskim preobrazovatelyam)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 76-77 (USSR)

ABSTRACT: The Conference took place at Krynica from October 17 until October 26, 1958 and was organized by the

Institute for
Fundamental Technical Problems of the Polish Academy of
Sciences. Apart from Polish scientists, representatives from
Hungary, the German Democratic Republic, Denmark, Rumania,
USSR, the German Federal Republic, Czechoslovakia and Yugoslavia
took part. In his opening address I. Malecki (Poland)
emphasized the importance of electroacoustics. Many reports
dealt with the electroacoustic transformers in the form of
equivalents and two-terminal pair network which was partly
criticized by the author. In connection with this problem
the reports held by L. Filipczyński (Poland) and V. S. Grigor'-
yev are regarded to be the most interesting ones. A. A. Anan'-

Card 1/2

Symposium on Electroacoustic Transducers

POL/5981

The following basic problems are treated: 1) theoretical research on energy transformation processes; 2) experimental development of new types of transducers; 3) electroacoustic measurements; 4) technology of piezoelectric and magnetostrictive materials; 5) construction of transducers for technical needs; and 6) design of acoustical transducer systems. No personalities are mentioned. References (if any) follow the individual articles.

TABLE OF CONTENTS:

Preface

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Problems of Research Work on Electroacoustic Transducers. Ignacy Malecki,
President of the Conference

5

Ch. 1. General Problems and Theory of Electroacoustic Transducers
1. Classification of electromechanical transformation methods in the
light of the tasks faced within [sic] the design and construction
of electroacoustic equipment. V. S. Grigor'yev

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Card 2/2

2

M. ALECKI, IGNACY

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PHASE I BOOK EXPLOITATION

POL/5981

Symposium on Electroacoustic Transducers. Krynica, 1958

Proceedings of the Symposium on Electroacoustic Transducers [held in] Krynica, 17-26 September, 1958. Warsaw, Panstwowe Wydawnictwo Naukowe, 1961. 442 p. Errata slip inserted. 630 copies printed.

Sponsoring Agency: Polish Academy of Sciences. Institute of Basic Technical Problems.

Ed. in Chief: Janusz Kacprowski, Doctor of Sciences; Editing Committee: Ignacy Malecki, Professor, Doctor of Sciences; Wincenty Pajewski, Doctor; and Jerzy Wehr, Master of Sciences; Secretary: Juliusz Mierzejewski.

PURPOSE: This book is intended for physicists and acoustical engineers.

COVERAGE: The book is a collection of detailed research papers constituting the proceedings of a conference held in Krynica from 17 to 26 September 1958 under the auspices of the Institute of Technical Problems, Polish Academy of Sciences.

Card 1/8

3

MALECKI, Ignacy, prof.dr.inż.

Scope of application and development perspectives of non-destructive methods of material testing. Przegl ~~79~~ 79
no.5:170-175 Mr '58.

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↓
TECHN

MALECKI, Ignacy, prof., dr., inz.

Role and tasks of the Council for Technical Problems in the development of national economy. Przegl techn 79 no.2:41-45 '58.

(Poland--Technology)

MALECKI, I.

"Sessions and conferences"

p. 61 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Research centers"

p. 58 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"American scholar, Professor Paul F. Lazarsfield, in Poland"

p. 57 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Distinctions for Polish scientists"

p. 56 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Sixtieth anniversary of Professor Adam Krzyzanowski's scientific work"

p.55 (Review, Vol.3 no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Who's who in the Polish Academy of Sciences"

p. 46 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Poland, a thousand years; resolution of the Polish Sejm dated February 25, 1958, on millennial celebrations"

p. 44 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

"Key problems in the work of the technical council"

p. 28 (Review, Vol. 3, no. 1, Jan/Mar. 1958, Warsaw, Poland)

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 1, Jan. 59.

MALECKI, I.

Scientific research on radiophonic acoustics. p. 6.

BIULETYN TECHNICZNY. Warszawa, Poland. Vol. 2, no. $\frac{1}{2}$, January/June 1957

Monthly list of East European Accession (EEAI) LC, Vol. 8, no. 7, July 1959

Uncl.

MALECKI, I.

"Space sources" method of investigating the diffusion of supersonic waves in granulated media. p. 645.
(Archiwum Elektrotechniki, Warszawa, Vol. 5, no. 4, 1956.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

ILLEGIBLE

ILLEGIBLE

Orig Pub : Proc. II conf. ultrason., 1956. Warszawa, FWN, 1957, 65-70

Abstract : The discrete distribution of inhomogeneities is replaced by a continuous one and it is assumed that the presence of inhomogeneities leads to the appearance of complex forces (of viscous type) that determine the absorption and scattering of sound. These forces are determined in terms of the energy dW , scattered and absorbed in a volume dV . Relations are obtained for the speed and absorption of sound in a granular medium, which contain parameters that are connected with W . The value of W can be determined from the losses for each single inhomogeneity, W_0 , namely $W \leq W_0$, provided the energy flux from one inhomogeneity does not

Card : 1/3

POLAND/Acoustics - Ultrasonics

J-4

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 6556

Author : Malecki Ignacy
Inst : Institute of Basic Technical Problems, Poland
Title : Scientific Problems of Ultrasonic Techniques

Orig Pub : Proc. II conf. ultrason., 1956, Warszawa, PWN, 1957, 9-12

Abstract : This is the introductory paper at the Second Polish Conference of Ultrasonics. The principal scientific problems can be subdivided into three groups: (1) Physical ultrasonics. (2) Problems connected with passive application of ultrasonics. (3) Problems connected with active application of ultrasonics. In the first group one emphasizes the problems of generation (production of polycrystalline and synthetic piezomaterials with the best properties possible, magnetostriction and ferrites radiators, generation of hypersound, etc.) and propagation of ultrasound (speed and absorption, propagation in anisotropic granulated and layered media, investigation of properties of a medium under the influence of high intensity

Card : 1/2

MALECKI, Ignacy

"Electromechanic Analogies in the Technical Sciences," by Ignacy Malecki, Corresponding Member of the Polish Academy of Sciences. Nauka Polska, Polish Academy of Sciences, Warsaw 4th Year, Number 1(13), 1956.

ILLEGIBLE

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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700012-6

Malecki, Ignacy: "Development of Non-Destructive Testing Methods in Poland,"
Nauka Polska, Rok IV, NO 2/3(14-15), Warsaw, 1956.

Describes research on testing of materials by use of X-rays, radioisotopes,
and ultrasonics, under direction of Polish Academy of Sciences Committee on
Non-Destructive Testing Methods.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001031700012-6

MALECKI, II

Scientific bases of the research method with ultrasonic waves applicable in mining and geology. Tr. from the Polish. Vol. 16, no. 2/4, 1955
Budapest Hungary, KOZIEMENYEI.

SOURCE: Monthly list of East European Accessions, (EEAL), LC, Vol. 5, No. 3, March, 1956.

Malet'skiy Ignat'y

SHUL'KIN, Pavel., professor; MALET'SKIY, Ignat'y, professor

Radio in the people's Poland. Radio no.11:18-19 N'55. (MLRA 9:1)
(Poland--Radio)

MALWICKI, I.

"Comparative methods of research on acoustics in radiophonic studies." p. 367.
(PRZEGLAD TELEKOMUNIKACYJNY. Vol. 27, No. 12, Dec. 1954. Warszawa, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4.
April 1955. Uncl.

MALECKI, Iq.

POLAND/Acoustics.

J

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10123

Author : Malecki, Ignacy

Inst : O

Title : Scientific Problems in Acoustics and Ultrasonics in the German Democratic Republic.

Orig Pub: Nauka Polsk'a, 1954, 2, No 4, 202-206

Abstract: No abstract.

Card : 1/1

MALECKI, I.

Methods of applying tensor calculus in technical problems. p. 1
Vol. 2, no. 1, 1954, ROZPRAWY INZYNIERSKIE

SO:MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, (EEAL), LC, Vol. 4, No. 9,
Sept. 1955, Uncl.

MALECKI, I.

The Scientific Bases for the Use of Ultrasonics in
Mining and Geology. I. Malecki. (Acta. Un. Acad.
Sci. hungaricae, 1955, Vol. 13, Nos. 3/4, pp. 397-407.
In German.)

MALECKI 1
MALETSKIY, I. and KOLTONSKIY, V.

"Possibility and Extent of Applied Ultrasonic Methods to the Study of Ores"
Byull. Polskoy Akad. Nauk. Otd, 4, No 3, 1953, pp 125-128

Velocity and absorption of ultrasound in various ores (anhydride, salt, limestone, coal, sand) were studied in laboratory conditions in the frequency range of 30-150 kc. It was found that absorption slightly rises in the frequency range of 30-150 kc and increases rapidly over 80 kc. Velocities were measured on cylindrical specimens by means of the standing wave. Longitudinal waves moved at a 4000 meters/sec velocity in salt. Authors consider this method useful for study of ore structure. (RZhFiz, No 11, 1954)

SO: W-31187, 8 Mar 55

MALECKI, I.

"Acoustical and antivibrational materials." p. 361. (MATERIALY BUDOWLANE, Vol. 8, no. 12, Dec. 1953, Warszawa, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

ILLEGIBLE

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MALECKI, I.

Polish Technical Abstracts
No. 4, 1953
Other Branches of National
Economy, Miscellaneous

2331

Malecki I., Filipczyński L. Functional Absorbers - Theory of Operation and Results of Experimental Research.

„Pochłaniacze przestrzenne — teoria ich działania i wyniki badań doświadczalnych”. (Prace Cent. Inst. Ochrony Pracy No. 277), Warszawa, 1953, PWT, 13 pp., 18 figs.

The functional absorber — a new type of sound absorbing system. It is, essentially, a body the surfaces of which have the faculty of absorbing acoustic power. Moreover, certain types of absorbers also avail themselves of the resonance phenomenon. The authors deal with the theory of functional absorbers, and the results of adopting such absorbers for use on a laboratory scale. Theoretical considerations and measurements show that the absorption factors amount to values higher than one.

③ Physics

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MALECKI, I.

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Malecki I. The Application of Dialectics in Technical Science.
„Zastosowanie dialektyki w naukach technicznych”. Przegląd
Elektrotechniczny. No. 1—2—3, 1951, pp. 5—9.

The article deals with differences in the methodology of scientific and technical research, as conducted under capitalist and socialist structures. A review of the application of the four principles of dialectics in technical science proves that they make it possible to find the most suitable technical solution for serving the requirements of the community. The dialectic method enables the scientist to establish the best possible link with practice, eliminating from his work all cosmopolitan tendencies. Absolute and conscious application of this method is only possible if science is to serve the community, and not powerful capitalism.

Math. & Natural Sciences

P.T.A. MALECKI, I

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658
Malecki I. Acoustics and Electroacoustics.
„Akustyka i elektroakustyka”. Przegląd Telekomunikacyjny No.
1, 1951, pp. 2-9.

A problem paper compiled within the framework of preliminary preparations connected with the First All-Poland Congress of Science, dealing with the state of research in electroacoustics carried out in Poland before and since the war. The author, in defining the lines of development for the immediate future, quotes the theses of work carried out in electroacoustics by scientific research institutions and academies. (In conclusion, a résumé is given of the discussions which followed the report).

LIPINSKI, Andrzej; MALECKI, Henryk

Mechanical valve batching gas to a source of ions. Nukleonika 9
no. 6:499-500 '64.

1. Department of Experimental Physics, University, Lodz.

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